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ABSTRACT

One of the primary teaching tasks of an elementary school social studies teacher is that of helping pupils interpret the numerous sources of data found in a social studies program. The purpose of this self-instructional teacher education module is to develop proficiency in utilizing data interpretation process. A sequence of activities is designed to develop teacher competency in using a process model to guide pupils in the interpretation of data. The model outlines teaching strategies which move from a series of concrete, specific encounters with factual data to a higher cognitive level which requires a conclusion or generalization that can be supported by the data. Questioning techniques used to convey specific thinking tasks to pupils are discussed. In Part II a model for analysis of the data source of still pictures is used and activities related to picture analysis are included. Appendices contain in-depth analyses of two commercial photographs. Related modules are SO 005 443 and SO 005 444, and SO 005 446 through SO 005 450. (SHM)

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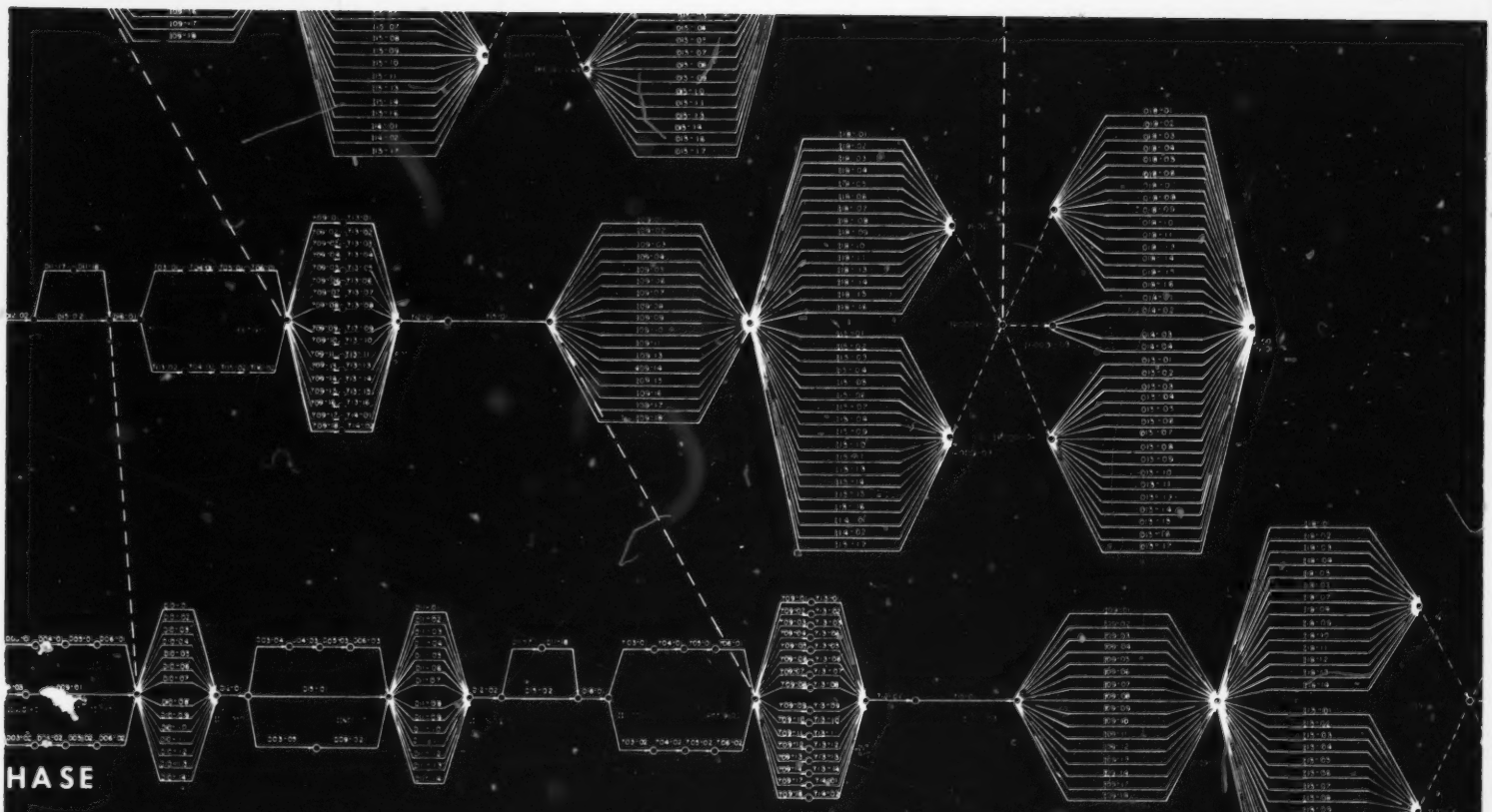

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Department of Social Science Education

SOCIAL STUDIES FOR THE ELEMENTARY SCHOOL

PROFICIENCY MODULE #4

INTERPRETING DATA

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INTRODUCTION

One of the primary teaching tasks of an elementary school social studies teacher is that of helping pupils interpret the numerous sources of data found in a social studies program. Be the data sources textual material, photographs and study prints, selections from children's literature that illustrate a social studies concept or generalization, specialized data from one of the social sciences, or life experiences of the pupils, the teacher must be prepared to guide the thinking of children as they try to derive meaning from the data. Much more must be accomplished than understanding and memory of the facts and data presented. The teacher helps children make inferences and draw generalizations from the data.

If one has no understanding of the process of generalizing and interpreting data, instruction can be chaotic and ineffective. The purpose of this module is to develop proficiency in utilizing data interpretation processes. First, the reader will be introduced to a general process model for interpreting data. Then the reader will work with a case study for interpreting a very common data source in elementary school social studies, the photograph.

BEHAVIORAL OBJECTIVES

This sequence of activities is designed to develop teacher-trainee competency in using a process model to guide pupils in the interpretation of data. The following objectives describe in behavioral terms the specific competencies developed in this module.

I. Terminal Competency

A. Given a social studies textbook, the reader will be able to select a photograph appropriate to convey data and pose questions to guide children through the picture analysis process.

B. Using the question sequence developed in the above objective, the student will use the photograph and the picture analysis process with elementary children at a grade level of choice.

II. Enabling Activities

A. Given sets of teacher questions and a process for interpreting data, the reader will

1. Analyze the questions to determine if they adequately reflect the process.

2. Reorder scrambled sets of data interpretation questions.

B. Given a set of textual data, the reader will frame a sequence of teacher questions to guide pupils as they interpret that data.

C. Given a photograph, the reader will use the presented process of picture analysis to frame questions appropriate for use with pupils as they interpret data conveyed by the picture.

PART I. A GENERAL PROCESS MODEL FOR INTERPRETING DATA[1]

In teaching pupils to interpret data using an inductive approach, the teaching strategy is one of moving from a series of concrete, specific encounters with factual data to a higher cognitive level requiring a conclusion or generalization that can be supported by the data. Pupils, not the teacher state the conclusion or generalization that can be derived from the data.

The teaching strategy in conducting this series of moves from more concrete to more abstract requires three basic levels of operation.

1. Analysis of Specifics--Identifying and examining specific information from the body of data.
2. Analysis of Relationships--Developing relationships between specifics and explaining the relationships.
3. Generalizing--Concluding, inferring, or generalizing from the data.

When teaching lessons that require pupils to interpret data, the teacher often relies heavily on questions to convey to pupils their specific thinking tasks. What types of questions

[1]The general process of interpreting data described in Part I of this module has been adapted from "Interpreting Data," Higher Level Thinking Abilities Manual, Northwest Regional Educational Laboratory, Portland, Oregon.

would a teacher ask to move pupils from an analysis of specifics to generalizing?

The questions asked pupils in the generalizing process might be termed "open" questions, "focusing" questions, "interpretive" questions, and "capstone" questions. The teacher first begins with an open question, then moves to focusing and interpretive questions, and concludes with one or more capstone questions.

Objectives, examples, and discussion skills for each question type are illustrated in Table 1 on the following pages.

Figure 1 on page 10 summarizes the interpretation of data process.

TABLE I

Interpretation of Data[2]

TEACHING STRATEGIES

1. Open Question:

Objectives: (1) To elicit a universe of facts, concepts and ideas upon which to operate.
(2) To provide an opportunity for every student to become initially involved in the discussion.

Ask an open question which calls for recall or reading of data from the field of information being interpreted.

"What did you see in the film?"
"What happened in the story?"
"What did you see take place in the experiment?"
"What have we been able to find out about Bolivia?"

Discussion Skills:

Acceptance - Accept all responses in a non-judgmental manner.

Supporting - Encourage students to become involved and express their ideas.

"Take a minute to think."
"Go ahead - express it in any way that you can."
Avoid editorializing.
(Nonverbal support) - wait - don't rush the response.

Mapping -Attempt to gain as much information as possible.

"Are there any points that we have missed?"

2. Focusing Questions:

Objective: To focus on specific points to be compared, contrasted and related to other points.

Ask a question (or series of questions) which focuses upon specific data.

"What did the film tell us about transportation?"
"What feelings did Taro express at this point in the film?"
"What happened when we added acid?"
"What industries do they have in this area?"

Discussion Skills:

Substantiating - (A basic discussion skill of the interpretation process) Ask the student to give evidence of the basis for his response.

"When you say Taro was angry, what were some of the things that he did or said in the story that made you feel this?"
"What happened that makes you believe that the chemicals changed state?"
"What facts did you find that lead you to believe that Japan is industrialized?"

3. Interpretive Questions:

Objectives: To elicit comparing, contrasting, and relating of specific points within the field of data.

Ask a question (or series of questions) which calls for the students to draw a relationship between two or more points in the data.

"How did Toshi and Oji-san feel that was different from how the others felt?"
"What differences do you notice between these two groups?"
"Is there any relationship between the climate of this area and the farm products?"

Discussion Skills:

The main discussion skill is, again - Substantiating. Ask the student(s) to support the response.
"What happened in the story that makes you believe the others were more selfish than Toshi and Oji-san?"
"How do you account for the differences you stated?"

Quite often, when an interpretive question is asked, a student will generalize.

Examples:

T - "What relationship do you see between the industries of this area and the natural resources."
S - "Industry depends upon natural resources."

Asking for substantiation at this point calls for the student to support and/or refine the generalization.

"What information do you see that supports the statement that industry depends on natural resources?"
"Is this the only factor that industry depends on?"

4. Capstone Question:

Objectives: To move the discussion to the verbalization of high-level abstractions.

Ask a question which calls for -
(a) a conclusion
(b) a summary
(c) inferences
(d) generalizations

"What conclusions could we draw from our discussion?"
"How could we summarize what this film has presented?"
"What could we say that might be true

of other societies?"
"What could we say that this experiment has illustrated?"

Discussion Skills:

Substantiating - The basic discussion skill is asking for proof, particularly in the case where students have overgeneralized.

"What did you (note, read) that would support what you have said?"
"Would that be true under all circumstances?"
"How could you state it so that it fits most situations?"

Discussion Skills which are generic to any discussion:

Refocusing - The discussion moves off focus. Call it back.

Clarifying - Clarifying an ambiguous term.
"What do you mean by customs?"

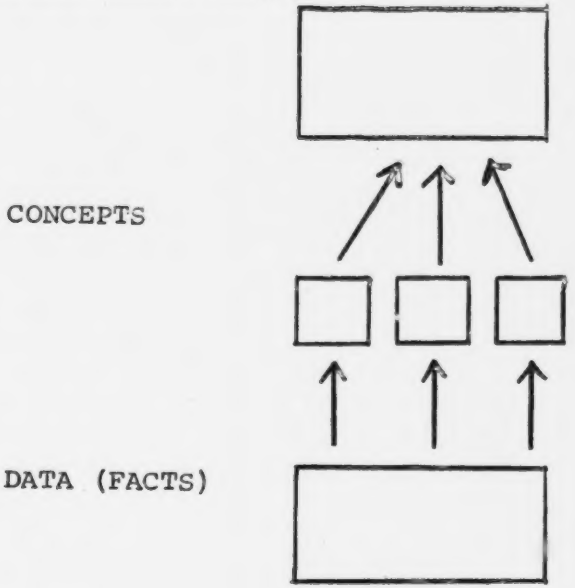
Summarizing- Calling for the idea buried in a long discourse.
"Could you give us the main idea of what you are saying?"

Mapping Field-Obtaining as much information as possible.
"Is there anything else that you would like to mention?"

[2]Taken from materials developed by the Northwest Regional Educational Laboratory, Portland, Oregon (Higher Level Thinking Abilities Manual).

FIGURE 1

PROCESS OF INTERPRETING DATA



QUESTIONS	OBJECTIVE
CAPSTONE	Seeks high level abstraction in form of a conclusion or generalization(s) derived from ideas expressed in discussion.
INTERPRETIVE	Seeks relational statements.
FOCUSING	Seeks identification and examination of specific information.
OPEN	Seeks active, widespread verbal participation.

Activity 1

Part A

Analyze the following two sets of teacher questions and determine if they adequately reflect the data interpretation process described in Part I.

		Your Analyses
Set 1	What did you see in the film?	
	How many different kinds of factories were described?	
	What were some desirable effects of having many factories in this city?	
	What were some undesirable effects of having so many factories in this city?	
Set 2	What does this story tell you about the feelings of different people?	
	Why was Jerry so pleased with himself at the end of the story?	
	How did you feel toward Jerry?	
	How did Bob feel about what Jerry had done?	

Part B

Often teachers ask good questions but do not ask them in a logical sequence. Reorder the following scrambled set of questions to illustrate the sequence of the data interpretation process.

Order of question in a more logical sequence.

_____ 1. Why did Jimmy act as he did?

_____ 2. What happened in the story?

_____ 3. What did Jimmy do?

_____ 4. Has anything like this happened to you? How did you feel?

_____ 5. How did Susan feel about Jimmy's behavior?

_____ 6. What can we say about the way different people react to the same situation.

_____ 7. Did Jimmy feel that he had done the right thing?

_____ 8. What did Greg think Jerry should have done?

Activity 2

Below is a set of data presented in a fourth grade social studies textbook.[3] Write a sequence of questions to guide pupils as they interpret the data.

Place	Area in sq. miles	Population	Density per sq. mi.
Ghana	92,000	9,000,000	98
Wyoming	97,914	330,000	3½
Australia (Northern Territory)	523,620	30,000	3/5
Australia (Victoria)	87,884	2,455,000	27
India	1,704,299	545,000,000	319
United States	3,615,210	200,000,000	55½
New York City	315	7,800,000	24,761

Question Sequence:

[3] This Is Man, Silver Burdett Company, Morristown, New Jersey, 1972.

PART II. USING PICTURES AS DATA SOURCES

Upon completion of Part II of this module you should be able to accomplish the following objective:

> Given a social studies textbook, the reader will be able to select a photograph appropriate to convey data and pose questions to guide children through the picture analysis process.

Of all the possible sources of social studies information one of the most useful and available is photographs. Pictures can be used by students who can read and by those who cannot. "Thus a picture is the best substitute for actual landscape where human activity is shown in its natural setting."[1]

The availability of still pictures has increased appreciably in the last few years. Companies such as Denoyer-Geppert, Fideler, and Silver-Burdett market large color and black and white photographs. Textbook companies also seem to be making more use of photographs and other graphic techniques instead of depending only on textual material to present data. The availability of free and inexpensive materials now make it possible

[1] Paul Griffin and Ronald Chatham, "The Still Picture in Geography Instruction," Topics in Geography, No. 3. Normal, Ill.: National Council for Geographic Education, 1967.

for a teacher to have a comprehensive photograph collection with little expenditure except time.

In spite of the present easy access to pictures, one problem in using pictures as data sources still exists. That is, the teacher must take care in the selection of photographs presented to students. As long ago as 1929, Halverson[2] recognized the problem of picture selection and attempted to present a rating scheme to help in picture selection. Halverson rated photographs into three classes. Class I photographs were those that showed both cultural and physical elements of human life. Cultural elements relate to people and the things people make and do such as human activities, work, play, dress, houses, etc. Physical elements relate to the natural environment such as climate, rainfall, temperature, various landforms, topography, etc. Class II photographs are those that contain either cultural or physical features. Class III photographs are those lacking either cultural or physical features to the extent that little can be inferred from the photograph about people and their way of life or physical features of the landscape.

[2]Lynn Halverson, "Pictures in the Teaching of Geography," The Journal of Geography, 28 (1929), 28, 357-358.

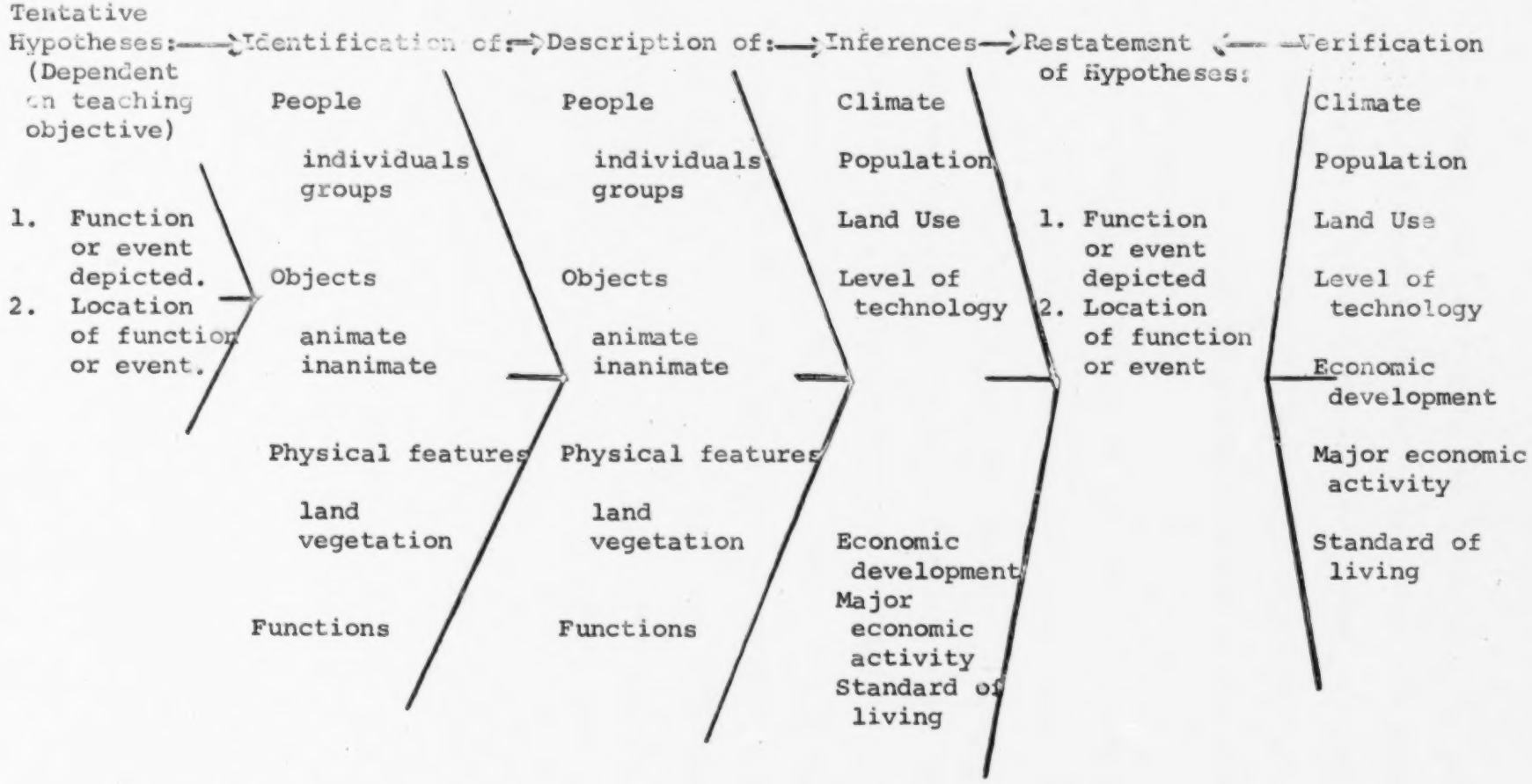
Class I photographs are most useful, Class II follow in degree of usefulness, and Class III, except in unusual circumstances, are least useful as sources of information.

A Model for Analyzing Pictures

The statement "a picture is worth a thousand words" is a truism that has been accepted at face value by the general public and teachers for decades. The writers believe that this is true only if certain conditions prevail. All too often teachers consider photographs to be decorations, therefore little use is made of them. A photograph is useful as a data source only if the student examines it in a systematic fashion. Usually, students perceive the focal point of a picture without attending to the picture's components; the components are often the major contributors of information. With this idea in mind, a model for systematically examining a photograph is presented.

According to the model presented on the following page, picture analysis proceeds from statements of tentative hypotheses through the phases in which people, objects, physical features of the land, and functions of the people are identified and described. The flow of

A MODEL FOR PICTURE ANALYSIS



Taken from Michael L. Hawkins. "A Model for the Effective Use of Pictures in Teaching Social Studies," Audiovisual Instruction (April, 1971) 16: 46-48.

discussion of these phases, as identified by large and small arrows, may be interchangeable with identification and description merging into inferences. The tentative hypotheses are then restated and verified. A word of caution: since photographs are analyzed by students with limited knowledge of locales, their responses may or may not be the same as one might expect from students who possess a wide knowledge of the customs and geographical setting of the photograph. The exactness of the student's responses during the analysis process is not in question, although a check on the correctness of the responses should be made during the verification step in the analysis.

Types of Questions Appropriate for Use With the Model

The key to successful picture analysis is the teacher's ability to ask the right kind of questions. Contrary to what is commonly thought and written by most authorities on questioning techniques, the type of question most appropriate for use in the identification and description phases of the model is a relatively narrow question that requires the student to identify and describe what he sees. It is not suggested that "why" questions are not usable. They are most desirable in the inference phase

of the model, but not in the identification and description phases. Examples of appropriate types of questions follow; additional examples are presented in the analysis of Picture #1 in a later section of this module.

Statement of the Tentative Hypothesis:

In order to form the tentative hypotheses, students should be directed to look at the whole picture in order to get a general overview of the work-play functions being performed and the picture's probable location.
Ex. What do you suppose the people are doing in the picture? Where would you guess this picture was taken?

Identification:

Ask questions leading students to count and name the items in the picture. Ex. How many people do you see? How many houses do you see?

Description:

Ask questions leading the children to describe the items counted or named in the identification phase of the model. Ex. How are the people dressed? Do the people look like we look?

Inference:

Ask questions leading the students to make inferential statements about the conditions that may be present in the picture. Ex. What clues tell you about the temperature?

From the way the people are dressed, can you tell if it is hot or cold?

Restatement of the Hypothesis:

The questions used in this phase of the process are similar to those mentioned above, i.e. inferential questions. Ex. From what we have said about climate, rainfall, and temperature where would you now think the photograph was taken? From what we have said about the functions being performed, what do you now think is being done in the picture?

Verification:

The answers given during the questioning session should be verified by the use of maps of many types, globes, textbooks, and other sources of information. Children should be guided through the verification phase to see if the restated hypothesis seems to be valid.

Your first task will be to pose a series of questions on a specific picture that will lead your students through the analysis process. An example is provided for you as Picture #1 and the questions used to facilitate the analysis

A photograph entitled Priya Ramrakha has been omitted, as it is unreproducable in microfiche.

Example 1--Picture #1

Statement of the Tentative Hypothesis:

What do you suppose is going on in this picture?

What are the people doing?

Where would you guess this picture was taken?

Identification:

People

How many people do you see?

What people do you see--men, women, children?

Groups

Are the people working in groups?

How many people are in each group?

Objects

What objects do you see--houses, how many?

Do you see any tools?

Are there any animals in sight?

Are there any buildings in the background--how many?

Physical features

What features of the land can you name--any hills, trees?

Do you see any shadows?

Functions performed

Who is working--how many?

What are the children in the foreground doing?

What are the five people in the middle distance doing?

What do you think the seven men in the middle ground of the picture are doing?

Have you ever seen work like this before--where?

Description:

People

How would you describe the people--men or women, boys or girls?

To what race would you say they belong?

How would you say they are dressed--is it like we dress?

Does the way they're dressed suggest a hot or cold climate?

Do the people look like we look?

Objects

Describe the buildings you see?

What do you think the roofs are made of?

What do you think the walls are made of?

Do you see any paths or roads?

Are the roofs flat--how would you describe the roofs?

What do you think the buildings are used for?

What are those little wooden structures in the middle ground?

Do the buildings suggest a hot or cold climate, lots or little rainfall, high or low temperature?

Physical features

What kind of land do you see, do trees planted in straight rows mean anything?

Would the land be good for farming?

Do the hills look very high?

Can you tell what kinds of crops are planted?

Do the trees look like any you've seen around here?

Functions performed

Does the work look hard or easy?

Can you tell me what you think the people are doing?

Inference[3]:

Climate

What clues tell you about the temperature?

From the way the people are dressed, can you tell anything about the temperature?

Can you tell from the buildings anything about temperature?

Season

What clues tell you about the season of the year?

Do the clothes being worn give you any ideas?

Rainfall

Is this a wet or dry land? What makes you think so?

Do the houses, maybe the pitch of the roof, or the heaviness of the thatch give you any idea?

Would a dry land have thick, heavy, green vegetation?

Population

What clues tell you about population density?

Are there many people or houses grouped together?

[3]In most instances the first question presented under the categories in inference is an inferential question. The others are suitable if the students have difficulty with the inferential question and the teacher wants to direct them to specific clues.

Are there broad expanses of uncultivated land?

Land use

What clues tell you whether the land is fertile?

Can you tell what the land is used for?

Level of technology

Is the work done by hand, by machine or some other method?

Is there any evidence of machines, power lines, telephone poles, television?

Economic development

What do you think is the main work of the region?

Do you think that much of the work would be done by hand or by machines?

Standard of living

What clues tell you whether the people are prosperous or not?

Do you see evidence of automobiles, television, fine clothes, etc?

Restatement of the Hypotheses:

What clues tell you what is happening in this picture?

What clues suggest the country where the picture was taken?

Verification:

This most important phase of the model was done by individual students under the teacher's direction. The teacher asked these kinds of questions to get the students started.

Where could a person look to find average temperature and rainfall?

Where could we look to find examples of types of buildings?

Where could population figures be found?

As answers to these questions were found, other sources and other questions were suggested.[4]

[4]This photograph was analyzed by a small group of fifth-grade students. Their responses were tape-recorded then re-written in more acceptable form. For a complete description of the outcome of the analysis, see Appendix #1.

Activity 3

As previously stated, your first task is to pose a series of questions on Picture #2 on the following page that will lead your students through the analysis process. Do not attempt to write all the questions you can think of during this activity, rather write only those that you think would be representative of each phase of the analysis model.

Statement of Tentative Hypotheses:

Identification:

Description:

Inference:

Restatement of the Hypothesis:[5]

[5]For a complete analysis of Picture #2, see Appendix #2.

A photograph (© Lenoyer-Geppert Company, Chicago) has been omitted, as it is not reproducable in microfiche.

TERMINAL ACTIVITY

Successful completion of the following activity will demonstrate that you have obtained the competencies needed to exemplify mastery of the terminal behavioral objectives listed on page 2 of this module.

Using a student's social studies textbook written for a grade level of your choice, select a Class I photograph (or study print, magazine picture, etc.) and then pose questions that would lead your students through the picture analysis procedure.

If you are in a field experience classroom as part of the curriculum block, you may wish to use the social studies textbook and accompanying materials being used by your supervising teacher. If you are not in a field experience classroom, social studies textbooks and study prints for this activity can be examined in Room 206 of Aderhold Hall.

Use the form on the next page to complete this activity. Return the completed form to your instructor to determine if you have successfully completed the terminal objectives of this module. After your instructor has examined your completed activity, use the picture and the data interpretation process with pupils in your field center classroom.

TERMINAL ACTIVITY FORM--MODULE #4

Textbook Citation:

Title:

Author:

Publisher:
Copyright Date:
Grade Level:
Page(s) Used:

1. Behavioral Objective(s):

2. Materials: Given above

3. Method of presentation (or model utilized): Picture Analysis Process

4. Procedure: (Question Sequence)

   a. Statement of Tentative Hypotheses

   b. Identification

   c. Description

d. Inference

e. Restatement of the Hypothesis

5. Method of Evaluation:

APPENDIX 1

Analysis of the Denoyer-Geppert photograph, Indians of the Upper Amazon

Re-printed from Michael L. Hawkins. "A Model for the Effective Use of Pictures in Teaching Social Studies," Audiovisual Instruction (April, 1971) 16: 46-48.

Tentative Hypotheses

The people in the picture are at rest or posing for the photographer. The location is South America or Africa.

Identification

One woman is seen grouped with three children. One man is standing, one is sitting, and a woman and a child are standing in the hut. An animal is lying in the clearing.

The hut is set in the middle of a clearing. Outside the hut one large pot is on the ground; a pot on sticks is under the house. Two baskets are hanging from the ceiling of the hut; another pot is on the floor.

In the background surrounded by foliage stands another hut. Outside the clearing nine standing and one felled tree are counted plus much dense vegetation. Also, outside the clearing, a cloth is draped over foliage on the ground. No hills or mountains are apparent. There are shadows under the house.

The children are leaning against the pot in the foreground of the picture. The woman close to the pot is holding a bowl in one hand. She and the children are looking to the side. The people in the house are sitting and standing. The man standing on the porch is looking closely at an object held in his hand.

Description

Except for the man standing on the porch of the hut, the people are heavy and not well-muscled. At least one child has a very large stomach; the woman has a layer of fat around her stomach. The man is dressed in long trousers and a short-sleeved shirt. The others are barefoot and wearing short skirts with shoulder-chest ornaments or coverings made from long grass. The woman and children are also wearing a grass band just below the knee. Their facial features seem Indian; their skin has a reddish cast.

There is a small brown and white animal near the edge of the clearing. No other animate objects are seen. The hut is built on foundation stilts with a log floor and a steeply-pitched, thatched roof. Baskets hang from the ceiling. The large pot around which the woman and children are standing appears to be about three feet tall. The pot on sticks under the house is much smaller with no neck. The only shadows seen are directly under the house. A second hut similar in appearance to the first stands in the dense foliage outside the clearing. A large white object that looks like cloth is draped over the short foliage at the edge of the clearing.

The land on which the hut is built is bare of vegetation and appears wet. There is dense vegetation outside the clearing including tall broad-leafed trees and several smaller broad-leafed trees that appear to be banana trees. There are no mountains, or bodies of water in sight.

Since the woman is standing with a bowl in her hand and the children are tipping the large pot, it appears as if the woman stopped in the process of dipping something from the pot to pose for the photographer. The group of people in the hut seem to be at rest, perhaps talking.

Inferences

The light clothing or almost no clothing worn by the woman and children, and the man wearing light colored clothes suggest a hot temperature. Also, the hut being raised from the ground would indicate a need for air circulation which would be another clue to hot temperature. From the vegetation, the steeply pitched and heavily thatched roof, the damp appearance of the ground, and the hut being on stilts, it would appear that the rainfall in this area was heavy.

The shadow being directly under the house would indicate that the time was at or near mid-day. Only one house in this clearing plus the house in the background of the picture would make one surmise that the population was sparse. The land use would be primarily forest as indicated by the dense vegetation.

The level of technology is low as evidenced by the lack of mechanical devices either in the house or in the clearing. The labor probably would be performed by hand. The major economic activity would be farming and/or gathering as indicated by the banana trees at the edge of

the clearing and the lack of cleared land. This, however, may not be the total economic activity of the family. That both men are dressed similarly but differently from the woman and the children may indicate that the men go outside the clearing or village to work. The standard of living would be low by American standards as evidenced by the lack of any mechanical devices and the appearance of the hut and the dress of the people.

Restated Hypotheses

Since the men of the family are at home but dressed for work, the shadows directly under the house, and the woman is preparing to dip from the pot, it is hypothesized that the family is gathering for the noon meal which the woman was interrupted in preparing. The picture was taken in Brazil probably within the Amazon River Basin.

Verification

A climate map shows the rainfall in the north of Brazil to range from 60 to 80 inches per year. The globe indicates that the mouth of the Amazon is directly on the equator and that the length of the river and its tributaries is located within 10 degrees of latitude south of the equator. A vegetation map indicates that the chief tropical rain forest region to be from Belem on the east coast through the western border of Brazil to where the land begins to merge into the Andean foothills. The elevation map shows that the area close to the Amazon River is between sea level and 500 feet--no hills or mountains--so the average temperature (81 degrees at Manus would not be modified by elevation.

The population in this region is shown by a population map to range from less than 2 persons per square mile to 2 to 25 persons, the latter along the Amazon River and its tribularies.

A geography textbook indicates that the land use of this area is gathering (hunting, fishing, lumbering) and subsistence farming with 58 percent of the entire population of Brazil engaged in these occupations. To help verify the level of technology another social studies text was consulted. This text related that while Brazil has minerals, timber, and other resources and leads the other South American countries in manufacturing, the people of the north live chiefly by subsistence farming, earning some money by gathering and selling rubber, Brazil nuts, and other tree products. There are practically no railroads and very few roads in this region; to ship products and get supplies people must live close to a river.

An index into standard of living was obtained by examining a series of graphs which related that of the five geographical regions of Brazil, the north was lowest in national income, in agriculture, and in livestock and products.

APPENDIX 2

Analysis of the Silver-Burdett photograph, Living in Kenya

The Analysis re-printed from Michael L. Hawkins. A Model for Interpreting Still Photographs. Athens, Ga.: R and D Center in Educational Stimulation January, 1970.

Tentative Hypotheses

The picture shows people building a house. The picture caption tells that the location is Kenya.

Identification

In the center of the picture eight youths are sitting or standing on a partially finished hut. Of these persons, two or three are boys and the rest adult males. Behind them to the right of the picture are two finished huts with thatched roofs, and in front of the group is a low shed that could be a rabbit hutch. Three of the young men standing on the partially built hut are holding long poles ready to put them into the framework of the house. A woman and three little girls are standing to the left, watching the young men who are busy at their building. An older man standing on the ground near the woman and children appears to be giving directions about the work to the young men on the roof. It looks as though he may be telling them how to place the sticks that go to make up the framework for the walls and roof of the new building. To the right in the foreground, two sturdy small boys are running past one of the finished huts. Nearby a hen is pecking at the straw-strewn ground; no other animal life is seen. What seems to be a corral is beyond the woman and children on the left, but no animal is visible there.

The physical features of the land appear to be hills that are partly farmed. There is one tall tree behind the corral, and on the slope there are many trees of different heights.

In the colored picture, the sky was very blue with white clouds.

Description

All the people in the picture except the older man are of slight build. He is wearing old style African robes, but all the younger men are dressed in European

style dress, with short-sleeved dresses and skirts which are very long compared with present-day American fashions. Everyone in the picture is barefoot and all except two of the workmen are bareheaded.

The walls of the huts are made of mud laid on a trellis framework of sticks. The huts are round and the framework of sticks end in a point at top center like a circus tent. We can see the central pole of one of the finished huts sticking up above the thatched roof. From what we see of the building, it seems that the walls of mud are built up around the framework and then the thatched roof is laid on top, supported by the sticks which meet at the central pole.

On the hills most of the land is planted with what look like young trees which throw long shadows. Right up to the top of the hill we also see large trees and cultivated fields. There is at least one large, modern house with a tiled or slated roof and some smaller houses. Several huts in a group form what might be farm out-buildings.

The function or activity being carried out in this picture is house building. The workmen, although busy setting up the frame for the walls, are all relaxed and some are smiling as though pleased that the building of the hut is going forward to their satisfaction.

Inferences

Since none of the people in the picture are warmly dressed, it was thought that, at the time the picture was taken, the weather was mild. There must be enough rainfall to grow crops without irrigation, but it seems that not a great deal of water is available because the vegetation is relatively sparse. The population is also sparse. The two finished houses and the new one being built are close together which might indicate that the photo shows part of a village.

The land use of the region would be primarily farming and perhaps grazing is evidenced by the two areas of straight rows of cultivated land and the stick corral. The level of technology (know-how of the people) would be low as evidenced by the lack of mechanical devices near the huts or in the fields. All the labor is being done by hand. The economic development of the county portrayed would be low by standards of farming areas in the United States. The lack of mechanical devices and the style of dress of the people would also

indicate that, by American standards, these people are poor. The major economic activity appears to be farming.

Restated Hypotheses

The function pictured would be house building in a village. The photograph was taken in a hilly part of Kenya, perhaps on the eastern slopes of the eastern highlands near Mount Kenya.

Verification

A climate map shows the rainfall of Kenya to range from under 10 inches in the easternmost area to 80 inches in the areas closest to Lake Victoria. The appearance of the land in the photograph gives the impression of some midpoint between these two rainfall extremes, perhaps about 20 to 40 inches of rainfall per year. Our globe shows that the equator passes directly through Kenya; however, the land-form map shows that Kenya is mainly highland (plateau, hills, mountains) so any suggestion of continuously high temperatures near the equator would have to be modified by the idea of cooler temperatures at higher elevations. The people's clothing would indicate a relatively mild temperature. The temperature map in our textbook says that the area surrounding Mount Kenya has a mild climate so we may conclude that the photo was taken in this region.

The population inference was that the area was not heavily populated. A population map shows that the population of Kenya ranges from under 2 persons per square mile to over 200. Previous inferences (temperature, rainfall) suggested that this scene was photographed in the eastern foothills of Mount Kenya. The population of this area as shown on a population map is 2 to 25 people per square mile, which would fit our population inference. A geographical regions map shows that Kenya is either semi-desert or grassland. The grassland region, which may be interpreted as grazing and cultivated land, is in the southwestern part of the country. To help verify the level of technology, a non-fiction trade book was consulted and it was found that, in Kenya, a little farm machinery is used and household implements such as electric mixers or toasters, are almost unknown; most of the rural population have no electric lights or television in their homes (Kenworthy, 1967). We then concluded that the level of technology (know-how of the people) of many of the people in Kenya was low. Further, none of the photographs included in the texts we studied showed tractors, harvesters, or other mechanical devices in use on these farms.

EVALUATION FORM FOR SELF-INSTRUCTIONAL MODULES

Name_____ Date_____

Instructor_____ Course_____

Module Title_____

1. Approximately how many hours did it take you to complete this module_____.

2. Please check one square under each category (Usefulness & Difficulty) per row.

	Usefulness			Difficulty		
	Not Useful	Useful	Very Useful	Too Difficult	Too Easy	Just Right
1. Introduction						
2. Module objectives						
3. Explanations & Definitions						
4. Examples - Illustrations						
5. Directions						
6. Activities						

3. What should be added or deleted to improve this module? (Comment)

4. What degree of competence do you feel you now possess in understanding and being able to model (chart) a body of information?

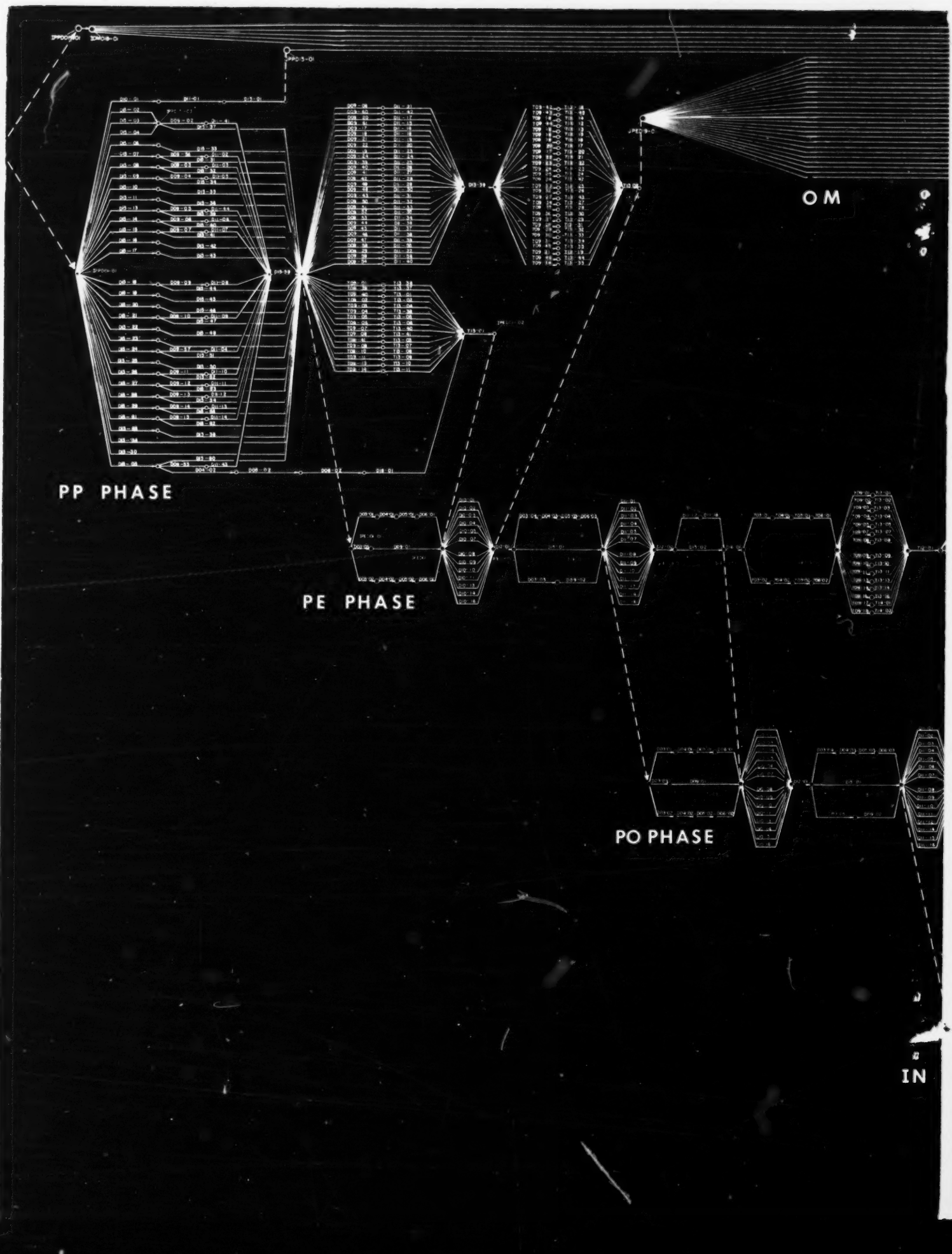
_____ Very Competent

_____ Marginally Competent (I feel I can do this but I think I may need more practice)

_____ Not Competent (I feel that I'm not able to do this.)

5. Have you completed modules for any other methods course at the University of Georgia? If so, list the courses below.

If you have completed modules in other courses, how would you rate this module in comparison to the others? (Comment)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